



CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Adopt Resolution Accepting Improvements under Contract for Heating, Ventilation, and Air Conditioning (HVAC) Installation Project for Lodi Public Library and Appropriating Funds (\$17,000)

MEETING DATE: October 6, 2010

PREPARED BY: Public Works Director

RECOMMENDED ACTION: Adopt resolution accepting improvements under contract for heating, ventilation, and air conditioning (HVAC) installation project for the Lodi Public Library and appropriating funds in the amount of \$17,000.

BACKGROUND INFORMATION: The project was awarded to TNT Industrial Contractors, Inc., of Sacramento, on October 15, 2008, in the amount of \$368,175. The contract has been completed in substantial conformance with the plans and specifications approved by City Council.

This project consisted of installing a new energy-efficient 120-ton chiller, cooling tower, tower filter, boiler, and plate and frame heat exchanger that was needed to replace the Library's obsolete HVAC system. It also included modifying/replacing ductwork, variable air volume boxes and diffusers, adding variable frequency drives, replacing pumps, and coordinating the installation of a total temperature controls energy management system. The equipment for this project was purchased under a separate contract to save on delivery time and contractor markup costs.

The original construction contract began in December 2008 and was anticipated to take 90 days. The actual completion date was August 17, 2010. In lieu of liquidated damages, the contractor agreed to perform extra work to correct ducting that was incorrectly installed by a sub-contractor, as described below. The final contract price is \$456,644.23. The difference between the contract amount and the final contract price is mainly due to 11 change orders that total \$88,469.23, or 24 percent of the original contract amount.

The subcontractor responsible for the installation of the new ductwork put in return-air ductwork, without approval, that was both too small and incorrectly installed. Unfortunately, this was not discovered until staff had moved back into the Library from their temporary location. Although City staff looked for a resolution other than replacing all the small ductwork, it was determined in mid-September 2009 that the incorrectly-installed return-air ducts needed to be replaced.

City staff met with the contractor on October 21, 2009, to determine if there were acceptable alternatives to pursue. Rather than have the contractor completely remove the subject ductwork, the City's contract engineer proposed a solution that would allow re-use of some portions of the subject ductwork and require some new ducts be added. The contractor agreed to do this work outside normal Library hours in November and December 2009. This work was done at no additional cost to the City. After this work

APPROVED: _____


Konradt Bartlam, Interim City Manager

was completed, the air balance subcontractor returned to balance the system. The system still did not meet the design requirements for the return air. It was also discovered that some control systems wiring had been damaged during the duct changes, and this wiring was later replaced at no cost to the City.

On May 21, 2010, the air balance contractor, engineer, City staff, and the controls contractor determined the air flow on the return air side had not been achieved. Modifications were made, and now the air balance meets specification tolerances.

All change orders were for additional work not in the base contract (the changes were necessary due to unforeseen conditions and Building Division requirements).

Change Order No. 1 included providing a cooling tower concrete pad and fence enclosure, removing portions of the existing concrete pad and sidewalk, installing a new concrete pad, constructing a fence to match existing, and retrofitting the gate (\$16,631).

Change Order No. 2 included picking up the cooling tower, heat exchanger and non-chemical system from Madera, CA, and delivering the equipment to the Library (\$845).

Change Order No. 3 included adding a butterfly valve to the boiler piping, demolishing additional duct work, providing additional framing, repairing the boiler room wall, fixing a leaking pipe joint, installing a backflow preventor, repairing the ceiling in the boiler room, and painting two I-beams at the cooling tower (\$11,260).

Change Order No. 4 included providing wire and conduit from the cooling tower vibration switch to the variable frequency drive and providing 20 additional duct straps on 220 feet of ducting (\$3,242).

Change Order No. 5 included adding 10 24-inch by 24-inch ceiling fire dampers and fire blankets and reinstalling 70 existing fire dampers (\$9,941).

Change Order No. 6 included adding one 3-inch butterfly valve inside of an air handler, repairing a broken 2-inch irrigation line under the cooling tower enclosure, a credit for the re-use of an existing butterfly valve, and a credit against Change Order No. 1 (\$1,056).

Change Order No. 7 included changing the boiler flue in the attic, repairing a leaking drain pipe, and adding cooling tower piping, a backflow prevention valve, fittings, and filters (\$9,845.60).

Change Order No. 8 included changing the boiler flue and adding a flue damper (\$5,998).

Change Order No. 9 included replacing the 7.5 HP return fan motor, balancing the system, and installing a motor upgrade to the 5 HP chilled water pump (\$3,876).

Change Order No. 10 included connecting four duct smoke detectors to the fire alarm panel, relocating the multi-zone coil control valves, and adding seven balancing dampers. This work took several months to complete due to the specialty subcontractor needed and special inspections required (\$9,159).

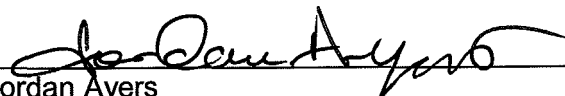
Change Order No. 11 included performing additional work on the duct smoke detectors and additional air balancing for the new volume dampers, installing flex ductwork, replacing the seal on a pump, performing the final air balancing, adding a sheave and changing the belt on a supply fan, and a credit for replacing the damaged control and communication wiring in the attic spaces (\$16,615.63).

The City has continued to hold 10 percent, or approximately \$45,000, in retention for the duration of the project. The warranty specified in the contract documents requires the general contractor to continue the warranty for a period of two years from the date of substantial completion of the project, which is August 17, 2010. Contract bonds are in full force during the warranty period.

Following acceptance by the City Council, as required by law, the City Engineer will file a Notice of Completion with the County Recorder's office. The notice serves to notify vendors and subcontractors that the project is complete and begins their 30-day period to file a stop notice requiring the City to withhold payments from the prime contractor in the event of a payment dispute.

FISCAL IMPACT: Replacement of the HVAC system will save operational costs associated with the prior HVAC equipment. Energy consumption savings of more than \$1 million are anticipated over the 25-year life of the new HVAC system.

FUNDING AVAILABLE: Requested Appropriation: Library Capital Fund (211807) \$17,000


Jordan Ayers
Deputy City Manager/Internal Services Director


F. Wally Sandelin
Public Works Director

Prepared by Dennis J. Callahan, Fleet and Facilities Manager

FWS/DJC/pmf

cc: Nancy Martinez, Director of Library Services

RESOLUTION NO. 2010-168

A RESOLUTION OF THE LODI CITY COUNCIL
ACCEPTING IMPROVEMENTS UNDER CONTRACT FOR
HEATING, VENTILATION, AND AIR CONDITIONING
INSTALLATION PROJECT FOR LODI PUBLIC LIBRARY
AND FURTHER APPROPRIATING FUNDS

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WHEREAS, the project was awarded to TNT Industrial Contractors, Inc., of Sacramento, on October 15, 2008, in the amount of \$368,175, and the contract has been completed in substantial conformance with the plans and specifications approved by City Council; and

WHEREAS, the project consisted of installing a new energy-efficient 120-ton chiller, cooling tower, tower filter, boiler, and plate and frame heat exchanger that was needed to replace the Library's obsolete heating, ventilation, and air conditioning system and included modifying/replacing ductwork, variable air volume boxes and diffusers, adding variable frequency drives, replacing pumps, and coordinating the installation of a total temperature control energy management system; and

WHEREAS, the original construction contract began in December 2008 and was anticipated to take 90 days. The actual completion date was August 17, 2010. In lieu of liquidated damages, the contractor agreed to perform extra work to correct ducting that was incorrectly installed. The final contract price is \$456,644.23. The difference between the contract amount and the final contract price is mainly due to 11 change orders that total \$88,469.23.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby accept the improvements under the contract for the heating, ventilation, and air conditioning installation project for the Lodi Public Library; and

BE IT FURTHER RESOLVED that funds in the amount of \$17,000 be appropriated from the Library Capital Fund for this project.

Dated: October 6, 2010

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I hereby certify that Resolution No. 2010-168 was passed and adopted by the City Council of the City of Lodi in a regular meeting held October 6, 2010, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Hitchcock, Johnson, Mounce, and
Mayor Katzakian

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None


RANDI JOHL
City Clerk